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In the Supreme Court of the United States

OCTOBER TERM, 1968

No.

UNITED STATES OF AMERICA, PETITIONER

v.

AN ARTICLE OF DRUG * * * BACTO-UNIDISK * * *

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

The Solicitor General, on behalf of the United States of America, petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Sixth Circuit in this case.

OPINIONS BELOW

The opinion of the court of appeals (App. A, *infra*) is reported at 392 F. 2d 21. The opinion of the district court (App. B, *infra*) is not reported.

JURISDICTION

The judgment of the court of appeals (App. C, *infra*) was entered on March 29, 1968. On June 18, 1968, Mr. Justice Stewart extended the time for filing a petition for a writ of certiorari to and including July 26, 1968. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

QUESTION PRESENTED

Whether the Secretary of Health, Education and Welfare correctly concluded that discs containing various antibotic drugs—discs which physicians use to select the antibiotic most appropriate to treat a particular patient—are "antibiotic drugs" under the Federal Food, Drug, and Cosmetic Act, and therefore are subject to the requirement in Section 507 of that Act that, pursuant to regulations of the Secretary, each such drug be tested by batches to insure its safety and efficacy.

STATUTE INVOLVED

The Federal Food, Drug, and Cosmetic Act, 52 Stat. 1040 (1938), as amended, 21 U.S.C. 301, *et seq.*, provides in part:

Sec. 201 [*21 U.S.C. (Supp. II) 321*]

For the purposes of this Act—

* * * * *

(g)(1) The term "drug" means (A) articles recognized in the official United States Pharmacopeia, official Homoeopathic Pharmacopoeia of the United States, or official National Formulary, or any supplement to any of them; and (B) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; and (C) articles (other than food) intended to affect the structure of any function of the body of man or other animals; and (D) articles intended for use as a component of any article specified in clauses (A), (B), or (C); but does not include devices or their components, parts or accessories.

* * * * *

(h) The term "device" * * * means instruments, apparatus, and contrivances, including their components, parts, and accessories, intended (1) for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; or (2) to affect the structure of any function of the body of man or other animals.

Section 502 [*21 U.S.C. 352*]

A drug or device shall be deemed to be misbranded—

(*l*) If it is, or purports to be, or is represented as a drug composed wholly or partly of any kind of penicillin, streptomycin, chlortetracycline, chloramphenicol, bacitracin, or any other antibiotic drug, or any derivative thereof, unless (1) it is from a batch with respect to which a certificate or release has been issued pursuant to section 507, and (2) such certificate or release is in effect with respect to such drug: *Provided,* that this paragraph shall not apply to any drug or class of drugs exempted by regulations promulgated under section 507(e) or (d).

Section 507 [*21 U.S.C. 357*]

(a) The Secretary of Health, Education, and Welfare, pursuant to regulations promulgated by him, shall provide for the certification of batches of drugs composed wholly or partly of any kind of penicillin, streptomycin, chlortetracycline, chloramphenicol, bacitracin, or any other antibiotic drug, or any derivative thereof. A batch of any such drug shall be certified if such drug has such characteristics of identity and such batch has such characteristics of strength,

quality, and purity, as the Secretary prescribes in such regulations as necessary to adequately insure safety and efficacy of use, but shall not otherwise be certified. Prior to the effective date of such regulations the Secretary, in lieu of certification, shall issue a release for any batch which, in his judgment, may be released without risk as to the safety and efficacy of its use. Such release shall prescribe the date of its expiration and other conditions under which it shall cease to be effective as to such batch and as to portions thereof. For purposes of this section and of section 502(*l*), the term "antibiotic drug" means any drug intended for use by man [1] containing any quantity of any chemical substance which is produced by a microorganism and which has the capacity to inhibit or destroy microorganisms in dilute solution (including the chemically synthesized equivalent of any such substance).

(b) Regulations providing for such certifications shall contain such provisions as are necessary to carry out the purposes of this section, including provisions prescribing (1) standards of identity and of strength, quality, and purity; (2) tests and methods of assay to determine compliance with such standards; (3) effective periods for certificates, and other conditions under which they shall cease to be effective

[1] This definition was added by the Drug Amendments of 1962, P.L. 87-781, to extend the certification controls to all antibiotics intended for human use as contrasted with veterinary use. H. Rep. 2526, 87th Cong., 2d Sess., October 3, 1962, Conference Report, Statement of Managers on the Part of the House, pp. 21-22. See, also, Statement by Senator Kefauver, 108 Cong. Rec. 22089, October 3, 1962.

as to certified batches and as to portions thereof; (4) administration and procedure; and (5) such fees, specified in such regulations, as are necessary to provide, equip, and maintain an adequate certification service. Such regulations shall prescribe only such tests and methods of assay as will provide for certification or rejection within the shortest time consistent with the purposes of this section.

STATEMENT

Section 507 of the Federal Food, Drug, and Cosmetic Act, *supra,* confers upon the Secretary of Health, Education, and Welfare the duty to provide by regulation "for the certification of batches" of antibiotic drugs to make certain that they have such characteristics of strength, quality and purity as are necessary "to adequately insure safety and efficacy of use." This requirement of batch testing was first applied to penicillin in 1945 (59 Stat. 463). The need for the legislation arose out of the circumstances that (1) penicillin was produced by a biological process and was subject to the vagaries inherent in such processes; (2) the drug, if promptly effective and free from toxic impurities, was useful for treatment of a long list of life-threatening illnesses; and (3) the methods for assaying the drug were uncertain and variable in result. Because methods previously developed to assure quality control in the preparation of drugs were inadequate to deal with a substance having these characteristics, Congress concluded that only by testing each batch of the antibiotic prior to its dissemination could the public be assured of safety

and effectiveness. See H. Rep. 702, 79th Cong., 1st Sess. (1945), particularly the letter from the Acting Federal Security Administrator recommending the legislation, pp. 10–11. As new antibiotic drugs, with similar characteristics, were developed, the statute was extended to cover them, reaching its present generalized form in 1962.[2]

With the development of the many forms of antibiotics (including some which present a risk of undesirable or dangerous side effects, when administered to some patients), it became important in medical practice to have a screening test which would provide the physician with an accurate estimate as to which among several available antibiotics would be likely to be effective against the patient's infecting organism. See, *e.g.*, Petersdorf and Plorde, *The Usefulness of In Vitro Sensitivity Tests in Antibiotic Therapy,* Annual Review of Medicine, Vol. 14, pp. 41–56 (1963); Physician's Desk Reference, p. 908 (1968). Antibiotic sensitivity discs were developed commercially in 1949 or 1950 (R. 96a) to provide such a rapid screening test. In the beginning only three antibiotic drugs were involved. As new antibiotics were introduced into clinical practice, new discs were developed.

Respondent, the "Bacto-Unidisk," is a sensitivity unit containing seven antibiotic drugs and sulfadiazine. The outer portion of the disc is a circular ½-inch-wide piece of cardboard with a diameter of

[2] Batch certification was extended to streptomycin in 1947 (61 Stat. 11) and to aureomycin and others in 1949 (63 Stat. 409). About 30 antibiotics are now listed in the regulations appearing at 21 C.F.R. 145.3.

slightly over 3½ inches, resembling a bracelet. Extending inwardly from the ring are eight smaller circular units, each impregnated with one of the drugs. The name of each drug appears on the ring near the place where one of the impregnated circles is attached (R. 141a). In use, micro-organisms, in a specimen drawn from the patient (sputum, urine, throat swab, blood, pus, etc.) are cultured on an agar surface while in contact with the disc. Zones of inhibition of bacterial growth will appear 6 to 18 hours later around the antibiotic drugs to which the infecting organisms are sensitive, whereas no zones of inhibition will appear around the antibiotics that are not effective. This means that each of the antibiotic drugs has diffused from its area of the disc into the surrounding growth medium and has inhibited or not inhibited bacterial growth. From this reading, the physician is able to select one or another of the antibacterial agents for his patient's treatment (R. 11a, 13a, 31a–32a). It is undisputed on this record that the results of sensitivity testing guide the physician in his selection of a treating agent, and help him rule out agents which are not effective or which are less effective against the infection involved or which would needlessly present a risk of harmful side effects (R. 13a, 34a–35a, 38a, 43a, 47a–49a, 90a, 93a–94a, 100a, 103a).

In 1960, after notice (25 Fed. Reg. 3084) and an opportunity for public participation, the Commissioner of Food and Drugs, under authority delegated by the Secretary, promulgated regulations to require batch certification of dry powders of antibiotic drugs

used for sensitivity testing and of antibiotic sensitivity discs intended for use in diagnosis or treatment of disease (25 Fed. Reg. 9369). The order recited that sensitivity discs initially had been exempted from batch certification requirements, but that, following "numerous complaints by the medical profession, hospitals, and laboratory technicians, the Food and Drug Administration made an extensive survey" of the production and marketing of discs, and found them unreliable in their statements of potency with resultant impairment of their safety and effectiveness (25 Fed. Reg. 9370). It was therefore deemed "vital for the protection of the public health" (*ibid.*) to adopt regulations requiring batch certification of antibiotic sensitivity discs. The regulations are published at 21 C.F.R. 147.

This case arose as an *in rem* seizure proceeding against an interstate shipment of a number of cases of Bacto-Unidisk, which the complaint alleged (1) were "drugs" within the meaning of the Act, (2) were composed of specific antibiotic drugs, and (3) were neither certified nor exempted from certification, as required by Section 507 of the Act, and the regulations issued thereunder (R. 4a–5a). Difco Laboratories, which produces the discs, admitted the allegations, except that it denied that the articles were "drugs," and thus that they were subject to batch certification requirements under the statute.

The district court held that, although the discs come within the definition of "drug" in Section 201(g) of the Act, read literally, and despite the fact that "drugs" were contained therein, the discs were not

"drugs" since no part thereof is administered to man or other animals, either internally or externally, and the disc "does not purport to be and is not represented as a 'drug' as that term is used in medical science or by physicians generally" (App. B, *infra*, pp. 10a–11a, 15a). The court suggested, without deciding, that the discs would more appropriately be classified as "devices" under Section 201(h) of the act, *supra* (App. B, *infra*, pp. 10a–11a).

The Court of Appeals for the Sixth Circuit affirmed, stating that the sole function of the disc is to furnish doctors with information which enables them to treat diseases previously diagnosed; that the discs have nothing to do with diagnosis or prevention of disease; and that, although the discs aid physicians in the determination of what antibiotic to use for the cure, mitigation or treatment of disease, Congress did not intend to apply the statutory phrase "intended for use in the * * * cure, mitigation, [or] treatment" in such an indirect manner (App. A, *infra*, p. 3a).

REASONS FOR GRANTING THE WRIT

This case presents an issue of vital importance to the public health and of general importance in the administration of the Federal Food, Drug, and Cosmetic Act. The courts below have overturned the informed judgment of the Secretary, based on extensive study and a formal rule-making proceeding, that the Act's requirements of batch testing must be applied to the respondent discs in order to protect the public. The courts rejected this conclusion on the basis of their belief as to the common medical usage of the

statutory term "drug," without regard to the statutory definition of the term or to principles of statutory interpretation which this and other courts have developed. In so doing, the courts below have erroneously deprived the public of the only statutory protection which is adequate to assure that antibiotic sensitivity discs will be safe and efficacious in use.

1. Proper selection of a safe and effective drug in treating infections, particularly when the infection is refractory and life-threatening, depends in substantial measure upon the reliability of antibiotic discs, such as the Bacto-Unidisk, to aid the physician in promptly identifying the drug that is best for administration to his critically-ill patient. Indeed, the labeling for most of the antibiotics available to prescribers tells the physician that his use of these drugs should depend upon the results of *in vitro* culture and sensitivity testing.[3]

The physician on the front line of clinical practice must accept the discs as having their professed identity, strength, and quality, and as suitable to yield the results claimed in the labeling. The physician does not have the time, the skills, the facilities or the experimental patients needed to test the discs for potency and performance before using them to test the sensitivity of his patient's infection to the array of antibiotic drugs packaged on the disc (R. 101a). Con-

[3] See, *e.g.*, Lincocin (lincomycin), Physicians' Desk Reference (1968), p. 1173: "As with all antibiotics, *in vitro* culture and susceptibility testing should be performed before Lincocin is utilized as sole antibiotic therapy." See, also, Abbocillin, *id.* at 502; Polycillin, *id.* at 580; Prostaphlin, *id.* at 585.

gress recognized that it is vitally important to batch-test, for example, tablets of penicillin to assure that they have the declared potency and that they will dissolve properly and be transmitted into the patient's blood stream to treat his infection. Under the general standards enacted by Congress, the Commissioner of Food and Drugs has determined in a rule-making proceeding that it is equally important to test the antibiotics on discs to determine that each contains the specified potency of the declared antibiotic drug, and that each will properly diffuse from the tip into the bacterial growth medium to disclose whether it has an inhibitory effect on the bacterial microorganisms responsible for the patient's infection. The lives of critically ill patients may well be jeopardized if the discs contain excessive or deficient potencies of any of the drugs or if any of the drugs diffuse too rapidly or too slowly. Any such inaccuracy can result in a false reading of the sensitivity of the patient's infection to particular antibiotics.

The basic question here is whether the special procedures which Congress found necessary to assure the safe and effective use of antibiotics may properly be applied to discs which are impregnated with antibiotics and which are the means of determining which of such drugs to administer to a patient. It is the government's position that batch testing of such discs manifestly falls within the purpose for which the special procedures of Section 507 were developed, and that there is no reason to interpret the Act in such a way as to preclude the premarketing certification of

the discs. The purpose of section 507 is to make certain that antibiotics will be safe and effective in use. Without batch testing of the discs, there can be no assurance that the antibiotics administered to patients will satisfy that standard.[4]

2. The fundamental error of the courts below lies in their application of what they believed to be the common medical usage of the term "drug" to a complex, technical, regulatory scheme designed for protection of the public health, without regard to either the statutory definition of the term or the purpose of the statute. The courts below thereby disregarded the important principles of statutory interpretation set forth by this Court in *Securities and Exchange Commission* v. *Ralston Purina Co.*, 346 U.S. 119, 124–125. There, in interpreting a statutory exemption from registration of a private offering of stock, the Court said that the "natural way to interpret the private offering exemption is in light of the statutory purpose." Finding that it was the Congressional intent to exempt transactions as to which there

[4] At issue here is the right to exercise pre-clearance market controls, not only as to discs manufactured by Difco, but as to the other companies (presently three in number) engaged in the production and interstate distribution of the same sort of sensitivity units. One of these companies is under a permanent injunction restraining it from introducing into interstate commerce any antibiotic sensitivity units that have not been tested and certified (R. 157–162a).

Moreover, the reasoning of the courts below would equally preclude the requirement of batch certification of the antibiotics prior to their being impregnated onto the sensitivity discs, so long as antibiotics manufactured for that purpose are not commingled with those intended to be administered to patients.

was no practical need for the statute's application, the Court ruled that the interpretation of the exemption "should turn on whether the particular class of persons affected needs the protection of the Act." Applying this standard, the Court held, without any reference to usage of the term "public offering" outside the statute, that Ralston Purina's offering of treasury stock to its "key employees" was a "public offering" subject to the protections of the Securities Act because the employees had not been "shown to be able to fend for themselves * * *" (*id.* at 125).[5]

Here, as the district court admitted (App. B, *infra*, p. 10a), the discs do fall within the literal definition of "drugs" in Section 201(g), which is not limited to articles recognized in the official United States Pharmacopoeia, but alternatively includes "articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease."[6] Despite a contrary suggestion by the court of appeals, the discs are clearly used in the cure, mitigation, and treatment of disease. The real question in the case is how to draw

[5] Indeed, there is even more reason in the present case than in *Ralston Purina* to be guided by the policy of the statute, and to eschew reference to usage outside the statute, in construing the statutory term at issue. The term "public offering" was nowhere defined in the Securities Act (see 346 U.S. at 122). By contrast, the word "drug" is defined in Section 201(g) of the Food and Drug Act for "the purposes of this Act"—it is therefore a statutory term of art whose usage outside the Act is legally irrelevant to its statutory meaning.

[6] Application of the discs to a specimen drawn from a human being is also unquestionably "use by man" within the meaning of Section 507(a), as contrasted with veterinary use. See *supra*, p. 4, n. 1.

the line between "drug"[7] as defined in Section 201(g) and "device" which is defined in section 201(h) as "instruments, apparatus, and contrivances * * * intended (1) for use in the diagnosis, cure, mitigation, treatment, or prevention of disease * * *." Since the literal words overlap, the "natural way" to draw the line, as *Ralston-Purina* explained, "is in light of the statutory purpose." The qualities of antibiotics which led Congress to impose the requirement of batch testing are the same whether the drug is used for a pill, for a hypodermic injection, or as a test to determine what pill or injection to administer. The need for assurance as to quality and potency is as great when the antibiotic is used on a disc as when it is used in a pill or injection. Not only are physicians equally unable to make tests to determine potency, etc., whether the antibiotic is used in a pill or injection or on the disc; but patients—the class of persons that the Act is designed to protect—will derive little benefit from the Act's purpose of assuring that the antibiotic drugs administered to them are safe and properly potent if unreliability of the antibiotic sensitivity discs results in administration of the wrong drug to them.

In short, the whole purpose of batch testing of antibiotics for safety and efficacy of use applies to the discs of antibiotics. It was, therefore, entirely reasonable for the Secretary to consider the discs as drugs under Section 201(g), subject to the batch testing

[7] Section 507(a), *supra* pp. 3–4, which imposes the batch certification requirement, defines "antibiotic drug" as "any drug * * *"

requirements of Section 507. There was no adequate reason for the rejection by the courts below of the statutory interpretation arrived at in a rule-making proceeding conducted by the officials entrusted with the responsibility of administering this important public health legislation. Indeed, there was every reason to uphold that interpretation as consistent with the statutory language and in furtherance of the statutory purpose.

3. The Federal Food, Drug, and Cosmetic Act is properly given a broad construction in accord with its purpose to protect the public health. *United States* v. *Sullivan*, 332 U.S. 689. In *AMP, Inc.* v. *Gardner*, 389 F. 2d 825, 830 (C.A. 2), pending on petition for certiorari, No. 86, this Term, the Second Circuit rejected the idea that this important public law was "restricted to products commonly called 'drugs'." And long before that, the Court of Appeals for the Fifth Circuit, interpreting the "drug" definition of the 1906 Food and Drugs Act, rejected as "entirely too narrow" a contention that spring water could not be treated as a "drug" under the Act because of definitions of "drug" found in dictionaries and pharmacopoeias. *Bradley* v. *United States*, 264 Fed. 79. While, as we pointed out in our brief in opposition in the *AMP* case, those decisions are not directly in conflict with the decision below since the articles there involved were administered into the human body, the decisions do represent a conflicting approach to the interpretation of the Act, rejecting common usage as determinative of what constitutes a drug. Those decisions take what we believe to be the correct approach, *i.e.*, they apply the Act functionally

to afford the public the protections of the statute that are scientifically pertinent to the characteristics of the particular article at issue and to the medical use for which it is intended. The contrary judicial approach to the interpretation of the Act taken in this case is of great significance, not only in its application to the particular article at issue here, but in the general administration of the statute.

CONCLUSION

For the reasons stated, it is respectfully submitted that the petition for a writ of certiorari should be granted.

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JULY 1968.

APPENDIX A

No. 17592

(Filed March 29, 1968)

United States Court of Appeals for the Sixth Circuit

UNITED STATES OF AMERICA, PLAINTIFF-LIBELLANT, *v.* AN ARTICLE OF DRUG * * * BACTO-UNIDISK * * * DEFENDANT-CLAIMANT, APPELLEE

On Appeal from the United States District Court for the Eastern District of Michigan, Southern Division

Decided March 29, 1968.

Before COMBS, Circuit Judge, MCALLISTER and CECIL, Senior Circuit Judges

CECIL, Senior Circuit Judge. This appeal involves a product known as Bacto-Unidisk which is described as a circular one-half inch wide cardboard having a diameter of just over three and one half inches, with eight circular paper units extending inwardly from the ring. Seven of these units are impregnated with different antibiotic drugs and the eighth one with sulfadiazine. The disc is referred to as a sensitivity unit.

The action arose out of condemnation of a quantity of the product by the United States under the Food, Drug and Cosmetic Act, Section 301 et seq., Title 21, U.S.C. The government claims that the product (1) is a "drug" within the meaning of the Act, (2) is composed partly of specified antibiotic drugs, (3) was shipped in interstate commerce, and (4) was neither certified nor exempted from certification, as required

by Section 357, Title 21, U.S.C. This failure to obtain certification or exemption from certification, was alleged to render the product misbranded under Section 352(1), Title 21, U.S.C.

The threshold question is whether Bacto-Unidisk, the product in question, is a drug within the meaning of Section 321(g), Title 21, U.S.C. That section provides

> "The term 'drug' means (1) articles recognized in the official United States Pharmacopoeia, official Homeopathic Pharmacopoeia of the United States, or official National Formulary, or any supplement to any of them; and (2) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; and (3) articles (other than food) intended to affect the structure or any function of the body of a man or other animals; and (4) articles intended for use as a component of any article specified in clauses (1), (2), or (3) of this paragraph; but does not include devices or their components, parts, or accessories."

The district judge held that it was not a drug as defined in the Act. We agree.

It is conceded that no part of the disc, which is the subject of the action, is administered to man or other animals, either internally or externally. It is used in hospital laboratories and in clinical practice to test the sensitivity or reaction of a specimen drawn from a patient to each of the antibacterial units contained on the disc—hence, the reference, sensitivity disc. The patient's specimen may be sputum, urine, throat swab or other matter withdrawn from his body. The sole function of the disc is to furnish medical doctors with information which enables them to treat diseases previously diagnosed.

If the statute has any application, it would have to be under subdivision (2), "articles intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease in man or other animals; * * *" The district judge said in his opinion, "When it comes right down to the determination which we must make, a literal reading of (g)(2) which defines 'drug' as 'articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals' clearly has application to the article libeled herein." This is only true in an indirect sense. Certainly it has nothing to do with diagnosis or prevention of disease. In itself it is not intended for use either internally or externally to cure, mitigate or treat disease. It only aids the physician to determine what antibiotics to use for the cure, mitigation or treatment of the patient's disease. We agree with the trial judge that it was not the legislative intent to apply the phrase "intended for use in the * * * cure, mitigation, treatment * * *" in such an indirect manner.

The district judge made Findings of Fact and Conclusions of Law. Finding of Fact 9 and Conclusion of Law 3 are as follows:

> "9. Sensitivity disks are not recognized in (admitted to) the United States Pharmacopoeia or the National Formulary, which are 'official compendia' under the Federal Food, Drug and Cosmetic Act (21 U.S.C. 321(j)) nor are such disks the kind of articles which are accepted for admission to the official compendia because, among other reasons, they are not regarded by the Committees on revision (admission) of the compendia as drugs within the commonly accepted meaning of that term in medical science. In medical science those substances which are for administration to or for

use on, a person for the treatment of disease or injury, are regarded as drugs. This is the commonly accepted view of physicians generally. A physician who testified for libellant could think of no example of a substance not taken into or applied to the body which he would 'consider medically' as a drug."

"3. In medical science the concept of 'drug' is limited to articles administered to man or other animals, either internally or externally. This is the generally accepted view among physicians (Finding Number 9). The evidence affords no basis for the conclusion that the definition of 'drug' in the Federal Food, Drug and Cosmetic Act (21 U.S.C. 321(g)) was intended by Congress to extend beyond the meaning of that term in medical science, to encompass these sensitivity disks. The definition of 'drug' is found in 21 U.S.C. 321(g).

We agree with the district judge and conclude that the Bacto-Unidisk, which is the subject of this action, is not a drug within the meaning of Section 321(g), Title 21, U.S.C. and is therefore not from a batch of antibiotic drugs to which a certificate or release is required pursuant to Section 357(a), (c), Title 21, U.S.C.

Authorities cited by counsel for appellant to the effect that such substances as honey, mineral water, cigarettes, peppermint leaves and human blood have been held to be drugs are not in point. Section 321(g), Title 21, U.S.C. defines "drug", in part, "as an article *'intended for use'* in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals." (Emphasis added.) In holding honey,[1] min-

[1] *United States* v. *250 Jars . . . Honey*, 218 F. Supp. 208 (E.D. Mich., aff'd 344 F.2d 288 (C.A. 6).

eral water,[2] cigarettes[3] and peppermint tea leaves[4] to be drugs, the courts based their opinions on the fact that by advertising these products as possessing therapeutic and medicinal powers, such products were "intended for use" as drugs and hence within the statutory definition. Whole human blood[5] which may be used in human blood transfusions clearly comes within the meaning of the statute.

Another question raised at the trial level and assigned as error on this appeal is that the claimant should be barred from raising the question that the seized article is not covered by the statute for the reason that it had not availed itself of permissible administrative procedure.

The Food and Drug Administration has attempted in Part 147 of its regulations (21 C.F.R. 147 et seq.) to issue regulations applicable to sensitivity discs such as Bacto-Unidisks. The appellant claims that inasmuch as the claimant, after due notice, failed to seek judicial review of the above regulations, as provided by statute, he cannot collaterally attack their validity in an enforcement proceeding. See *Byrd* v. *United States*, 154 F.2d 62 (C.A. 5); *United States* v. *Bodine Produce Co.*, 206 F. Supp. 201 (D. Ariz.). However, unlike those cases which involved regulations pertaining to articles which were concededly within the jurisdiction of the Food and Drug Administration, the issue in this case is whether Bacto-Unidisk is a drug within the meaning of the statute and therefore

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[2] *Bradley* v. *United States*, 264 Fed. 79 (C.A. 5).

[3] *United States* v. *46 Cartons . . . Fairfax Cigarettes*, 113 F. Supp. 336 (D.N.J.).

[4] *United States* v. *Hohensee*, 243 F.2d 367 (C.A. 3), cert. den. 355 U.S. 976, rehearing den. 354 U.S. 927.

[5] *United States* v. *Calise*, 217 F. Supp. 705 (S.D.N.Y.).

not subject to any regulation of the Food and Drug Administration. Our function on this appeal is not to review the validity of the regulations to determine if they are supportable by substantial record evidence and not an abuse of administrative discretion, but to determine, based upon an interpretation of the statutory definition of a drug, whether the seized article is within the Administrator's jurisdiction. A claimant cannot be precluded from defending a libel action on the ground that the seized article is not covered by the statute.

The judgment of the District Court is affirmed.

APPENDIX B

Memorandum Opinion

(Filed July 21, 1966)

When is a drug not a drug? When it is a part of a device or contrivance *not* for administration to man or animals, says the claimant. A drug is never "not a drug" says libelant—once a drug, always a drug. And this approximates the semantical conflict brought to a pinnacle by the conclusion of a trial before this Court, sitting without a jury.

A number of medical doctors testified as to the function performed by the libeled article and as to their understanding of the word "drug". Their testimony was not such as to compel a specific conclusion on the merits of this controversy, despite the fact that it was both interesting and enlightening.

The United States of America, libelant herein, filed a Libel of Information against the article, as per caption in the above title, seeking a decree of condemnation as to it pursuant to the provisions of the Federal Food, Drug and Cosmetic Act (21 U.S.C.A. § 334). Paragraph 4 sets forth the basis for the libel. It reads as follows:

"4. That the aforesaid article was misbranded when introduced into and while in interstate commerce within the meaning of the Federal Food, Drug and Cosmetic Act, 21 U.S.C.[A.]as follows:

352(1) in that article *purports to be and is represented as a drug* composed in part of penicillin, streptomycin, chloromycin, tetracycline, and aureomycin, and it is not from a batch with respect to which a certificate or release is in effect pursuant to 21 U.S.C. 357(a) and 357(c) and the article is not exempt from such requirements." (Emphasis supplied.)

Let us at the outset describe the article involved here. It is referred to as a sensitivity disk—the package bears the legend "Bacto-Unidisk for Antibiotic Sulfonamides A–S #1 Low Conc. Code 7011." The disk itself is a circular piece of ½ inch wide cardboard, having a diameter of just under 3½ inches. It resembles a bracelet. At evenly spaced intervals are printed the following words: "Penicillin", "Chlor", "S'Diazine", "Terra", "Erythro", "Tetra", 'Streptomycin", and "Aureo". Extending inwardly from the ring directly in front of each word is a small circular paper unit approximately ½ inch in diameter. Each such paper unit is impregnated with the chemical whose name appears closest to it on the ring. A Xerox reproduction of the article appears as an appendix hereto. Each such chemical is commonly used as an antibiotic drug, excepting sulphadiazine. The disk is referred to as a sensitivity unit. We will refer to each of the eight units as a sensitivity unit. The function of each sensitivity unit is to serve as an indication of the sensitivity or reaction of specimen from a patient to the particular chemical contained in the sensitivity unit. The patient's specimen may be in

the form of sputum, urine, throat swab, or other matter which has been withdrawn from the body of the patient. The reaction of the specimen serves as a guide to a medical doctor in his determination of the choice of antibiotic to prescribe for the patient. Perhaps the specimen reaction will indicate that the chemical contained in one sensitivity unit is more effective than that in another. The testimony in this case was to the effect that frequently a doctor has a choice of several antibiotic drugs to prescribe, with no persuasive basis for selecting one or another. The information obtained from the sensitivity disk may serve as a guideline to a doctor in choosing among several drugs, for administration to a patient, which without such information would be equal choice-wise. The testimony was that the disk is not primarily used in determining *whether* or not to prescribe an antibiotic, or sulphadiazine, but rather to aid in the choice of *which* antibiotic, including sulphadiazine, may be preferable. It appears to the Court that the use of the sensitivity disk in obtaining information provides a short cut. We are all familiar with situations where a particular antibiotic has been prescribed for a patient, taken by or administered to such patient with unsatisfactory results, requiring the prescribing of a different antibiotic which proves to be effective. It would seem that the use of the information obtained from the disk sensitivity test provides a means for eliminating much of the trial and error approach on the patient by screening out the non-advisable antibiotics without experimentation on the patient himself. In other words, the disk sensitivity units may serve as sort of guinea pigs, instead of the patients.

Claimant here challenges the conclusion of the Commissioner of Food and Drugs that its sensitivity disks are certifiable antibiotic drugs. Claimant takes no is-

sue with the language contained in 21 U.S.C.A. § 352 (1), quoted above. It does, however, take issue with the libelant's construction of 21 U.S.C.A. § 321(g)(2). We quote below the language of said subsection which is contained in the Definitions section of the Federal Food, Drug and Cosmetic Act:

21 U.S.C.A., § 321(g)

"(g) The term 'drug' means (1) articles recognized in the official United States Pharmacopoeia, official Homeopathic Pharmacopoeia of the United States, or official National Formulary, or any supplement to any of them; and (2) *articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals;* and (3) articles (other than food) intended to affect the structure or any function of the body of man or other animals; and (4) articles intended for use as a component of any article specified in clause (1), (2), or (3) of this paragraph; but does not include devices or their components, parts or accessories." (Emphasis supplied.)

It is the position of libelant that subsection (2) of the above has direct application to the libeled article herein. It is the position of claimant that such a strained construction of subsection (2) is completely unwarranted and contrary to the intendment of the definition. This brings us back to our initial query as to when a drug is not to be considered a drug. When asked whether he considered that "sensitivity disks are drugs in the medical sense or the scientific sense," one medical doctor witness answered: "I would have to say that it is drug usage in a scientific sense." (Transcript, page 99) The same witness testified as follows in answering the following question: (Transcript, page 100)

"Q. Are you saying any more than that the information derived from these sensitivity tests is used as a sort of guideline in treatment, for example?

A. No. I think that it would be a very fair statement. As a guideline. It helps the antibiotic choice to be given."

Again this witness, Dr. Charles K. Wolfe, Jr., gave the following answer to the question propounded: (Transcript, page 103)

"Q. Let's see. Do you have an example of something which is not taken into the body or is not applied to the body which you consider medically as a drug?

A. I don't believe I can think of one offhand."

Counsel on each side of this controversy have presented able arguments, both orally and in brief form, as to their respective positions and contentions. When it comes right down to the determination which we must make, a literal reading of (g) which defines "drug" as "articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals" clearly has application to the article libeled herein. Our reluctance to make this finding and conclusion our holding is due to the fact that it appears to us to be ridiculous and contrary to common sense. We are all the more convinced of this in the light of the definition appearing in the paragraph immediately following (g), which reads as follows:

"(h) The term 'device' (except when used in paragraph (n) of this section and in sections 331(i), 343(f), 352(c), and 362(c) of this title) means instruments, apparatus, and contrivances, including their components, parts, and accesso-

ries, intended (1) for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals; or (2) to affect the structure or any function of the body of man or other animals."

We are not here called upon to decide if the disk is a device, but it appears to us that consideration of it in this category under (h) is far more appropriate than consideration of it as a drug within the purview of (g). In view of our conclusion that the libeled article does not come within the purview of the definition of "drug" (21 U.S.C.A. § 321(g)), we deem it unnecessary to discuss other arguments advanced during the trial of this cause relating to side aspects of the issue. We are persuaded that the legislative intent here should not be interpreted to include this sensitivity disk as a drug, despite the fact that drugs are contained in the article, for the reason that no part of this article is administered to man or other animals, either internally or externally, and that its sole function is to provide medical doctors with information for use by them as guidelines.

Appropriate findings and conclusions may be submitted.

Thomas P. Thornton
United States District Judge

July 21, 1966.

FINDINGS OF FACT AND CONCLUSIONS OF LAW—

(Filed August 31, 1966)

FINDINGS OF FACT

1. A libel of information was filed in this Court on May 25, 1962, by the United States (hereinafter "libelant") praying seizure and condemnation, pursuant to the Federal Food, Drug and Cosmetic Act (21

U.S.C. 334) of an article alleged to be an antibiotic drug. By order of the Court entered May 25, 1962, the said article was attached by the United States Marshal.

2. The seized article was shipped from Buffalo, New York by Sterilon Corporation to claimant, Difco Laboratories, in the State of Michigan, on or about March 20, 1962.

3. The article consisted of 5 cases of 55 cartons each, each carton containing 50 clear plastic envelopes labled in part "Bacto-Unidisk for antibiotics Sulfonamides A-S #1 Low Conc. Tetra Streptomycin Aureo Penicillin Chlor S'Diazine Terra Erythro Code 7011", with a package insert entitled "Sensitivity Testing".

4. It was alleged in the libel that the article was misbranded when introduced into and while in interstate commerce within the meaning of 21 U.S.C. 352 (1) in that it purports to be and is represented as a drug composed in part of penicillin streptomycin, Chloromycetin, (chloramphenicol), tetracycline, and Aureomycin (chlortetracycline), that it is not from a batch with respect to which a certificate or release is in effect pursuant to 21 U.S.C. 357(a) and 357(c), and that the article is not exempt from such requirements.

5. Claimant, a corporation organized under the laws of the State of Michigan, filed a claim of ownership to the seized article and prayed to defend accordingly. Thereafter Claimant filed its answer and an amended answer.

6. Bacto-Unidisks, the brand name of the article seized, referred to generically as "sensitivity disks", are reagents used in laboratory testing of the sensitivity or resistance of microorganisms to chemicals corresponding to those with which the disks have been impregnated. The sensitivity disks in question are

composed of eight paper units extending inward from a paper ring, each of seven of which is impregnated with a different chemical corresponding to a chemical commonly used as an antibiotic drug, and an eighth with a chemical (sulfadiazine) which corresponds to a chemical commonly used as a drug but which is not an antibiotic (Tr. 28–29, 87, 185–186, 239–240).

7. Preliminary to the sensitivity testing procedure a plated agar culture medium is inoculated with a specimen taken from the body of a patient (such as sputum, blood, urine), incubated for an 18-hour period, and then, after proper preparation, the suspect organism is placed on a slide and observed microscopically for identification. In the subsequent sensitivity testing procedure the organism so identified is isolated and transferred to an appropriate agar culture medium on a Petri plate, the sensitivity disk is placed upon the culture medium, and the plate containing the agar and the disk are incubated, usually for an additional 18 hours to permit the organism to grow. A "zone of inhibition" (an area in which the organism does not grow) around the disk indicates that the organism is sensitive to the chemical on the disk. The absence of a zone of inhibition indicates that the organism is resistant to the chemical (see Transcript references in Finding Number 6 and Tr. 33–35, 188).

8. The information obtained from the sensitivity testing procedure outlined in Finding Number 7 is used by the physician as a guideline to treatment of the patient (Tr. 29–30, 37, 40, 48–50, 94, 100, 107, 167, 191). The disk, the culture medium, the Petri plate, and the incubation are all a part of the testing procedure yielding this information. Such information could not be obtained from the disk itself. The test is only one of many sources (such as the physician's

experience, clinical symptoms, the literature, and other tests such as urinalysis and blood serum tests) of the information upon which the physician relies in determining the treatment to be administered (Tr. 45–46, 53–54, 67–68, 108–110, 116–119, 145, 186–187, 240–241). The physician, frequently in emergency situations, selects and administers an antibiotic from the several (or "battery") usually available for the specific condition of the patient, without awaiting the results of the sensitivity test (Tr. 66–67, 88–89, 103–105). In such cases those results are then used by him to confirm his selection.

9. Senitivity disks are not recognized in (admitted to) the United States Pharmacopoeia or the National Formulary, which are "official compendia" under the Federal Food, Drug and Cosmetic Act (21 U.S.C. 321 (j), Tr. 273, 307), nor are such disks the kind of articles which are accepted for admission to the official compendia because, among other reasons, they are not regarded by the Committees on Revision (admission) of the compendia as drugs within the commonly accepted meaning of that term in medical science (Tr. 274–276, 301–302, 307–308, 317). In medical science those substances which are for administration to or for use on, a person for the treatment of disease or injury, are regarded as drugs (Tr. 102–103, 195, 199, 261–262, 283). This is the commonly accepted view of physicians generally. A physician who testified for libelant could think of no example of a substance not taken into or applied to the body which he would "consider medically" as a drug (Tr. 103).

10. The substances on the libeled disks are commonly used in other forms (tablets, ampules, etc.) in medical practice as drugs and are recognized as such in the official compendia (Tr. 308–309.). The libeled article, although consisting in part of chemicals which

are used as drugs when prepared in appropriate dosage forms for such use, is not intended to be used as a drug in the medical sense, since no part of it is to be administered to patients, either internally or externally. Similarly, the several substances with which the article is impregnated are not intended to be introduced into or applied to the human body when used on the disk.

11. The article does not purport to be and is not represented as a "drug" as that term is used in medical science or by physicians generally. It is labeled "For Laboratory Use" (Exhibit No. 1; Tr. 196–198).

CONCLUSIONS OF LAW

1. This Court has jurisdiction by virtue of 21 U.S.C. Section 334.

2. Only antibiotic drugs are subject to certification under 21 U.S.C. Section 357(a) and 357(c).

3. In medical science the concept of "drug" is limited to articles administered to man or other animals, either internally or externally. This is the generally accepted view among physicians (Finding Number 9). The evidence affords no basis for the conclusion that the definition of "drug" in the Federal Food, Drug and Cosmetic Act (21 U.S.C. 321(g)) was intended by Congress to extend beyond the meaning of that term in medical science, to encompass these sensitivity disks. The definition of "drug" is found in 21 U.S.C. 321(g), which reads as follows:

> "The term 'drug' means (1) articles recognized in the official United States Pharmacopoeia, official Homeopathic Pharmacopoeia of the United States, or official National Formulary, or any supplement to any of them; and (2) articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other

animals; and (3) articles (other than food) intended to affect the structure or any function of the body of man or other animals; and (4) articles intended for use as a component of any article specified in clause (1), (2), or (3) of this paragraph; but does not include devices, or their components, parts or accessories."

4. The seized article does not purport to be nor is it represented to be a drug within the meaning of 21 U.S.C. 321(g). It is not intended for drug use (see Findings Numbers 9 and 10) and it is the intended use which determines its status under that Section. *United States* v. *3 Cartons, Etc.*, 132 F. Supp. 569, 573 (D. Calif. 1952); *United States* v. *46 Cartons, Etc.*, 113 F. Supp. 336 (D. N.J. 1953). Consequently, the article is not from a batch (of antibiotic drugs) with respect to which a certificate or release is required pursuant to 21 U.S.C. 357(a) and 357(c).

5. The fact that chemicals corresponding to those on the article under seizure are commonly used in other forms as drugs, is not persuasive on the issue before the Court, since neither the article as such nor the chemicals with which it is impregnated are intended for internal or external administration to patients.

6. The libelant has failed to support the allegations of the libel or information. Claimant is accordingly entitled to a dismissal of the libel with prejudice, and to a return of the seized article.

FINAL DECREE

The above-styled cause having come on for trial commencing on or about May 18, 1965 before the Court sitting without a jury, witnesses' testimony for both sides having been taken and heard and argument

of counsel having been given and heard in open court, and the Court being fully advised in the premises, it is

Ordered, Adjudged and Decreed, that:

The libel of information filed in the above-styled cause, be and the same is hereby dismissed with prejudice, and it is directed that the articles seized and attached in the said proceeding above referred to be returned to claimant, Difco Laboratories.

Thomas P. Thornton
United States District Judge

Dated: August 31, 1966.

APPENDIX C

United State Court of Appeals for the Sixth Circuit

No. 17,592

(Filed March 29, 1968)

Carl W. Reuss, Clerk

UNITED STATES OF AMERICA, LIBELANT-APPLICANT, *vs.* AN ARTICLE OF DRUG * * * BACTO-UNIDISK * * * DIFCO LABORATORIES INCORPORATED, CLAIMANT-APPELLEE

Before COMBS, Circuit Judge, MCALLISTER and CECIL, Senior Circuit Judge

JUDGMENT

APPEAL from the United States District Court for the Eastern District of Michigan

THIS CAUSE came on to be heard on the record from the United States District Court for the Eastern District of Michigan and was argued by counsel.

ON CONSIDERATION WHEREOF, It is now here ordered and adjudged by this Court that the judgment of the District Court in this cause be and the same is hereby affirmed.

No costs awarded. Rule 23(4).

Entered by order of the Court.

CARL W. REUSS,
Clerk.

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